ESLE-10
Silver Loaded Epoxy

ESLE-10 is a one part silver loaded epoxy resin used for conductive bonding. It provides good mechanical bonds and excellent electrical conductivity making it suitable for many applications including prototype and repair. Typical electronics applications include conductive bonds between solder free surface mount connections, solder repair, static discharge and grounding and general conductive adhesions.

- Ideal for conductive bonding applications
- Single-part resin with fast cure times; aids efficient application
- Excellent electrical and thermal conductivity
- Excellent adhesion to a wide variety of substrates; high bond strength

Approvals **RoHS Compliant (2015/863/EU):** **Yes**

Typical Properties

Raw Material	Epoxy
Colour	Silver
Cure Profile	30 mins @ 150 °C
Shore Hardness	D70
Operating Temperature Range (°C)	-30 to +130
Volume Resistivity (Ω-cm)	<0.0005
Adhesion Strength (aluminium–aluminium, MPa)	>8
Glass Transition Temperature (°C)	60
Coefficient of Thermal Expansion (ppm)	30 (T<Tg)
	80 (T>Tg)
Thermal Conductivity, ASTM C177, (W/m K)	2.0
Shelf Life	6 months (at <5°C)*
Ionisable Chlorine Level (ppm)	<50

***** Containers must be kept in a cool, well-ventilated area and must be fully sealed until ready for use. Avoid all possible sources of ignition.

Description	**Packaging**	**Order Code**	**Shelf Life**
Silver Loaded Epoxy	200g tub	ESLE10-200GS	See Above

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Properties vs. Temperature:

Temperature (°C)	-50	23	80	100	150	200
Resistivity (Ω)	0.65	1.03	1.1	1.4	1.82	2.0
Adhesion Strength (MPa)	9.1	8.23	8.5	7.98	7.8	7.1

Thermal Aging:

Time (hr) @ 150°C	0	200	500
Resistivity (Ω)	1.1	0.98	0.95
Adhesion Strength (MPa)	8.7	9.3	8.8

Moisture Aging:

Time (hr) @ 50°C,RH 95%	0	200	500
Resistivity (Ω)	1.15	1.03	0.98
Adhesion strength (MPa)	8.1	7.92	7.20

Directions for Use

Allow to return to ambient temperature before use.
For best results, clean the PCB prior to use to remove any surface contamination which may affect the adhesion strength. Electrolube Ultrasolve (ULS) or Safewash Total (SWAT) are ideal for this. Curing at temperatures below 150°C may result in a loss of conductivity.

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